

**TELECOMMUNICATION  
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**Question(s):** 6/16 Geneva, 15-25 October 2002  
**Source:** ITU-T Study Group 16  
**Title:** LS on Video Coding Standardization Activities

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**LIAISON STATEMENT**

**To:** ISO/IEC JTC 1/SC 29 and ISO/IEC JTC 1/SC 29/WG 11 (MPEG)  
**Approval:** ITU-T Study Group 16 (Geneva, 15-25 October 2002)  
**For:** Reply/Information  
**Deadline:** None

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ITU-T Study Group 16 thanks you for your [Liaison Statement](#) regarding the technically-aligned video coding standard currently under joint development as ITU-T Recommendation H.264 and ISO/IEC 14496-10.

Regarding the ITU-T naming of the specification, SG16 plans to use the title "Advanced video coding for generic audiovisual services" for its Recommendation.

Regarding the requirements for carriage of H.264/AVC video in ITU-T systems, the general requirements expressed by WG11 are consistent with our views. Also, we agree on the need to avoid any major change to the design of ITU-T Rec. H.222.0 | ISO/IEC 13818-1, and we note in particular that the byte stream start code structure in the design adopted by our Joint Video Team at its 5<sup>th</sup> meeting ending 17 October 2002 appears consistent with this need. Regarding the carriage of

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H.264/AVC on Internet Protocol, we agree that the jointly-developed video standard is expected to specify only a generic packet network interface while an IETF specification will precisely define that IP/RTP encapsulation. It is required for ITU-T system use that the RTP payload specification should operate easily with SIP and H.323 systems without requiring any additional systems layer. Regarding the specification of file format support, this work should take into consideration the prior developments of the interim file format work in the JVT.

Regarding the copyright notice to be attached to the reference software developed for H.264/AVC developed collaboratively to be approved near the end of 2003, we suggest the establishment of a jointly-approved policy for collaboratively-developed software. The appropriate body in the ITU-T to develop such a policy is the ITU TSB Director's Ad Hoc Group on IPR, which will meet in February of 2003. The appropriate contact for communication with this Ad hoc group is Mr Masamichi Niiya, Secretary for the ITU-T Director's Ad-hoc Group on IPR.(contact information above). In the meantime, SG16 is satisfied with the ability for members to submit software using the copyright notice form used in either organization.

We also wish to inform WG11 of discussions in ITU-T SG16 regarding potential future work items for additional capabilities in the area of video coding. Potential topics discussed are listed below. We have not yet made any specific decisions in this regard.

Short-term potential straightforward extensions of H.264/AVC capability:

- 4:2:2 & 4:4:4 (incl. RGB color)
- 10-bit & 12-bit sample depth support
- efficient lossless coding

Medium-term potential activities for extension of H.264/AVC:

- optimization for computer-screen content
- polycomponent (alpha, multispectral, multi-view, etc.)
- enhanced error/loss resilience
- enhanced coding efficiency extension (15-30% mentioned as potential required gain to justify a coding efficiency extension)

Long-term (e.g., 5 years) "H.265/SAVC":

- evaluation of potential for new *very significant* advancement in coding efficiency, error resilience, etc. requiring a new basic design